

The logo for UCIrvine, featuring the letters 'UCI' in a large, bold, serif font, followed by 'RVINE' in a smaller, all-caps, serif font. A vertical line separates the 'UCI' and 'RVINE' parts.

UCIRVINE

The text 'INTERNAL AUDIT SERVICES' in a serif font, stacked in two lines. A vertical line is to the left of the text.

INTERNAL
AUDIT SERVICES

Pathology
Internal Audit Report No. I2022-203
March 31, 2023

Prepared By

Michael Shead, Senior Auditor

Reviewed By

Niran Joshi, Associate Director

Approved By

Mike Bathke, Director

March 31, 2023

**EDWIN S. MONUKI, MD, PHD
WARREN L. BOSTICK PROFESSOR AND CHAIR
DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE**

**RE: Pathology Audit
Report No. I2022-203**

Internal Audit Services has completed the audit of Pathology and the final report is attached.

We extend our gratitude and appreciation to all personnel with whom we had contact while conducting our review. If you have any questions or require additional assistance, please do not hesitate to contact me.

Sincerely,



Mike Bathke
Director

Attachment

C: Audit Committee
Neil Detweiler, Chief Administrative Officer/Administrative Director – Pathology
Administration

I. MANAGEMENT SUMMARY

In accordance with the fiscal year (FY) 2021-22 audit plan, Internal Audit Services (IAS) performed an audit of the UC Irvine School of Medicine (SOM) Pathology department. Specifically, IAS verified that adequate internal controls are in place over certain administrative and financial processes, including financial management, business operations management, and research administration. The following concerns were noted.

Inventorial Equipment Management – Several concerns were noted with the management of Pathology inventorial equipment located at both UCI main and medical campuses. Some equipment items were lacking University identification tags. Pathology’s certified list for inventorial equipment failed to document the names of responsible principal investigators and serial numbers for many equipment items. Equipment items were not always found in their designated location. Discarded equipment items were insufficiently documented, thereby hindering accountability over the equipment. Further details are provided in Section V.1.

Payroll Certification – Pathology payroll certification reports are not always completed in a timely manner. Six out of 15 sampled payroll certification reports (40 percent) due in FY 2022 were submitted after the 90-day extension following the budget period end-date. Further discussion is provided in Section V.2.

Disbursement Vouchers – Pathology employees without authority to purchase are purchasing supplies and other items with University funds. Employees are paying for the purchases with their personal credit cards and requesting the University to reimburse them for their expenditures. This issue is discussed in Section V.3.

Account-Fund Review/Reconciliation - Reconciliations of general ledger account-funds are not documented and are not always completed in a reasonable time period. This issue is discussed in Section V.4.

II. BACKGROUND

The Department of Pathology [and Laboratory Medicine] within the UC Irvine School of Medicine is dedicated to the diagnosis and understanding of human diseases through biomedical and clinical research. Using the latest technologies, pathologists help advance medicine by finding better ways of diagnosing, managing and treating diseases.

The Department of Pathology offers clinical diagnostic services to UC Irvine Health patients, as well as consultative and referral services to more than 30 hospitals in Orange County and more than 30 regional hospitals.

Services include histology and staining, morphometry and image analysis of tissue sections, laser-capture micro-dissection of tissue section, tissue bank and procurement service and genotyping.

In addition, Pathology conducts research and provides medical education. Pathology has a number of laboratory-based research programs supported by the National Institutes of Health (NIH) and other extramural sources. Ongoing research is conducted in the areas of immunology, microbial pathogenesis, neuropathology, cancer, inflammation, wound healing, and stem cell biology. Pathology also offers pre-clinical medical education through training programs that include graduate studies, residency training in Pathology, and the Clinical Laboratory Scientist program.

III. PURPOSE, SCOPE, AND OBJECTIVES

The purpose of the audit was to verify the adequacy of internal controls over key Pathology administrative and financial processes, including business operations, financial management, and research administration.

The audit scope included Pathology business processes, financial activities and research management practices in FY 2022. FY 2021 was included in the audit scope, as necessary.

The audit included the following objectives.

1. Verify that internal controls over payroll certification processes for federal, contracts and grants are compliant with federal guidelines, UC/UCI policies and procedures and/or best practices, as applicable.
2. Verify that internal controls over payroll transfers (direct retros) on federal contracts and grants are compliant with federal guidelines, UC/UCI policies and procedures and/or best practices.
3. Verify that internal controls over Pathology employee purchases reimbursed by disbursement vouchers (DVs) are compliant with UC/UCI policies and procedures and/or best practices.
4. Verify that internal controls over Pathology equipment management processes are compliant with UC/UCI policies and procedures, and best practices.
5. Verify that internal controls over general ledger account/fund reconciliation processes and account-fund structure are compliant with UC/UCI policies and/or best practices.

IV. CONCLUSION

Internal controls over certain administrative and financial processes, including control measures involving inventorial equipment management, payroll certification processes, purchasing processes and account-fund management/reconciliation processes need improvement.

The following observations were discussed with Pathology management who formulated management action plans to address the noted issues. These details are presented below.

V. OBSERVATIONS AND MANAGEMENT ACTION PLANS

1. Inventorial Equipment Management

Background

UC Irvine inventorial equipment is defined as any tangible asset with an acquisition cost of \$5,000 or more and a useful life of one year or more. University of California and UC Irvine policies require a uniform property control system that includes property identification through assigned numbers documented on tags that are attached to the equipment items. A record of inventorial assets must be maintained by each UC campus and must be updated bi-annually with input from each campus unit that has inventorial equipment.

Pathology's current FY 2021 certified list of inventorial equipment indicates 183 inventorial equipment items with a total purchase cost of \$3,384,485. Equipment items on the list were purchased between FYs 1978 and 2021. The purchase price of the equipment items range from \$5,008 to \$340,212. The median dollar value of the 183 equipment items is \$8,854.

Observation

A judgmental sample of 27 equipment items was selected from Pathology's current FY 2021 certified list of inventorial equipment. Fifteen equipment items were verified from the UCI main campus (e.g., SOM) and 12 items were verified from the UCI medical campus. Information included on each sampled physical equipment item (i.e., property and serial numbers) was verified for presence and accuracy to Pathology's certified inventorial equipment list. The following concerns were noted.

Equipment Items with Missing Inventorial Property Tags

One equipment item located on the main campus (cost: \$24,432), and another located on the medical campus (cost: \$11,496) did not have equipment tags, in violation of UC policy. As a result, the two equipment items had to be verified by the equipment serial numbers documented on the inventorial equipment list.

Equipment Items without Serial Numbers on the Inventorial Equipment List

Equipment serial numbers for five sampled equipment items (two located on the main campus and three located on the medical campus) were not documented on the inventorial equipment list. Serial numbers are critical in the accurate identification of equipment items, especially when property tags are missing.

Physical Equipment Locations differ from the Inventorial Equipment List

One equipment item located on the main campus and an additional nine equipment items located on the medical campus were found and verified, but were not in the assigned location indicated on the inventorial equipment list. In particular, one of the ten equipment items had been moved 15 miles from the medical campus to the main campus. In addition, Pathology employees responsible for moving the equipment items failed to notify the Pathology Equipment Custodian that the items had been moved. Principal Investigators (PIs) and/or assigned unit managers have primary responsibility for reporting permanent movement of inventorial equipment to the Equipment Custodian.

On occasion, inventorial equipment is moved from its assigned location and the Equipment Custodian is not notified. As a result, the equipment list is not updated, and the moved equipment item cannot be found when all equipment items are inventoried at a later date. Consequently, the moved equipment is written off as "lost" by employees updating equipment inventory records and removed from the inventorial equipment list.

PIs Responsible for Equipment Not Named on the Inventorial Equipment List

For eight equipment items sampled from the main campus, the name of the responsible PI and/or unit manager was not documented on the inventorial equipment list. Similarly for the medical campus, nine sampled equipment items were not associated with a PI's/unit manager's name on the inventorial equipment list. Accountability over inventorial equipment is weakened when there is a lack of clarity as to which Pathology employee is responsible for each equipment item.

Limited Communication/Accountability over Discarded Equipment

1. One sampled equipment item from the main campus (Biomarker Detection System-\$57,008 cost) could not be found. Further analysis indicated that the equipment item had been traded in by the responsible PI in November/December 2021, having just been purchased in FY 2019. Final payment for the equipment item had just been made according to the Equipment, Surplus Property, and KFS Asset Manager. In its place, the PI had purchased a fully-automated, much more expensive Biomarker Detection System. The new, replacement Biomarker Detection System was not included

- as inventorial equipment on the certified inventorial equipment list. In addition, the responsible PI had not informed the Equipment, Surplus Property, and KFS Asset Manager of the equipment “swap.”
2. In addition, two sampled equipment items on the medical campus could not be found. Further analysis indicated that the two equipment items had been discarded by Pathology employees prior to the audit. Neither discarded equipment item (a \$7,556 Olympus Digital Camera and a \$5,598 Olympus Microfire Digital Camera) had an equipment disposal “paper trail.” Knowledgeable Pathology employees could only state that the items had been “sent to salvage” at the UC Irvine Medical Center. Due to a lack of documentation, there was not any way to verify the proper disposal of the two equipment items.

To ensure the proper disposal of inventorial equipment items, a paper trail should be created and retained for all discarded inventorial equipment. Furthermore, inventorial equipment should always be discarded in a manner consistent with UC Irvine policy.

Management Action Plan

Equipment Items with Missing Inventorial Property Tags

By June 30, 2023, a review of the current equipment list (items greater than \$5K) will be completed by the Pathology Equipment Manager and staff to ensure inventorial property tags are identified on each equipment item. Furthermore, the Equipment Manager will be responsible for ensuring that all newly purchased equipment is properly tagged and identified on the equipment list within 30 calendar days from equipment delivery.

Effective immediately, an internal review will be conducted by the Equipment Manager to verify accuracy of property tags on the equipment list. This will be done by sampling a minimum of 20 percent of the total inventorial equipment list. Results from this annual review will be available in the Pathology Business Office for review. A Pathology department policy that requires this review to be performed annually by the Equipment Manager will be written and enforced.

Equipment Items without Serial Numbers on the Inventorial Equipment List

By June 30, 2023, a review of the current equipment list (items greater than \$5K) will be conducted by the Pathology Equipment Manager and staff to ensure that all physical equipment (greater than \$5K) will have serial numbers accurately recorded on the equipment list.

Effective immediately, an annual internal review will be conducted by the Equipment Manager to verify the accuracy of the serial numbers on the equipment list. This will be done by sampling a minimum of 20 percent of all equipment items

on the inventorial equipment list. Results from this annual review will be available in the Pathology Business Office for review. A Pathology department policy requiring this review to be performed by the Equipment Manager annually will be written and enforced.

Physical Equipment Locations differ from the Inventorial Equipment List

By June 30, 2023, a review of the current equipment list (items greater than \$5K) will be conducted to ensure that the assigned location of each equipment item is accurately reported on the equipment list.

Effective immediately, an annual internal review will be conducted by the Equipment Manager to verify that the physical location of each equipment item is accurately recorded in the inventorial equipment list. This will be done by sampling a minimum of 20% of the total inventorial equipment list. Results from this annual review will be available in the Pathology Business Office for review. A Pathology department policy requiring this review to be performed by the Equipment Manager annually will be written and enforced. As needed, periodic communications (i.e., emails, etc.) will be sent to responsible PIs/unit managers reminding them to report to the Equipment Manager any equipment items that will be moved.

PIs Responsible for Equipment Not Named on the Inventorial Equipment List

By June 30, 2023, a review of the current equipment list (items greater than \$5K) will be conducted to ensure that all equipment line items on the list include the name of the PI and/or other Pathology employee who is responsible for the equipment item. The Pathology Equipment Manager will be responsible for updating the equipment list when changes occur in PI/other Pathology employee responsibility for an equipment item resulting from a new equipment purchase, employee turnover, etc.

Limited Communication/Accountability over Discarded Equipment

By June 30, 2023, Pathology management will reach out to the Equipment, Surplus Property, and KFS Asset Manager to discuss proper methods for discarding physical inventorial equipment and removing the discarded equipment from inventory records. Management will also provide documented training to the Pathology Equipment Manager and to all Pathology employees with equipment management responsibilities as to proper methods of inventorial equipment disposal and reporting. Documented training efforts will be retained in the Pathology Business Office for review.

2. Payroll Certification

Background

As a recipient of federal funding, UCI is required to comply with the Office of Management and Budget (OMB) Uniform Guidance for tracking and reporting of payroll and payroll-related costs charged to federal contracts and grants. To comply with Uniform Guidance, UCI has implemented a Payroll Certification System (PCS), and payroll certification processes.

Payroll certification processes require that Principal Investigators (PIs) complete an after-the-fact review of salaries and wages charged to their federal awards and certify that the charges are accurate, allowable, properly allocated, and reasonable in relation to work performed. Payroll certification must take place at least every 12 months and is due 90 days from the award budget period end-date.

Observation

IAS reviewed Pathology PCS reports due in FY 2022. The sampled PCS reports pertained to federal awards with budget period end-dates between July 1st, 2021 and June 30, 2022. The PCS reports were prepared from payroll data provided by UCPath.

The audit sample included fifteen PCS reports in total. The review revealed that six awards (40 percent) had late PCS reports. Three PIs were responsible for the late reports.

Failure by Pathology administration to periodically review and manage their PIs' awards can result in the untimely completion of PCS reports. Late PCS reports violate Uniform Guidance guidelines and may hinder UCI's ability to obtain future federal awards.

Management Action Plan

By June 30, 2023, the Pathology Contracts and Grants Manager will develop an annual calendar of each federal grant's PCS due date. This list will be sent out to each PI and their cognizant Contracts and Grants analyst. It will be the responsibility of the Contracts and Grants Manager to ensure that the calendar is updated quarterly. In addition, the Contracts and Grants Manager will send out to the cognizant PIs a reminder of PCS due dates 30 days prior to submittal. A departmental policy to document these new procedures will be written and enforced.

3. Disbursement Vouchers

Background

The Disbursement Voucher (DV) document is used to reimburse employees and certain nonemployees for expenses incurred while conducting University business. DVs are also used to pay vendors for performing a service, or providing material goods to the University. However, despite their efficiency convenience, DVs enable employees without purchasing authority to be reimbursed after-the-fact by UC Irvine for purchases they make. In many instances, these purchases should have been made by a PALCard holder who is authorized to purchase goods and services on behalf of UC Irvine.

Observation

IAS reviewed a sample of DV purchases made by Pathology employees during FY 2022. The employees purchased and paid for the goods themselves and then requested reimbursement from UC Irvine. The following concerns were noted from a review of the purchase documentation.

1. One Pathology faculty member purchased a printer cartridge from an on-line vendor and paid for the purchase with his personal credit card. Subsequently, he was reimbursed with a DV. The faculty member also requested that the cartridge be shipped to an off-campus address.
2. A second Pathology faculty member purchased a book from an on-line vendor and paid for the purchase with his personal credit card. Subsequently, he was reimbursed with a DV. The faculty member requested that the book be shipped to an off-campus address.
3. A Pathology course instructor purchased a brain model from an on-line vendor and paid for the purchase with her personal credit card. Subsequently, she was reimbursed with a DV. The instructor requested that the model be shipped to an off-campus address.

All three purchases were coded as “emergency purchases” that preempted the need for a Palcard holder to make the purchase. With better planning by the purchasers, all of these purchases could have been made by a Palcard holder. Use of the DV payment method to make University purchases increases the cost of goods purchased resulting from additional employee time expended in obtaining and providing exceptional approvals and/or processing reimbursement requests for the unauthorized purchases.

In addition, internal controls are weakened when goods purchased with University funds are shipped to personal, off-campus address at the purchaser’s request.

Management Action Plan

By March 30, 2023, the Pathology Chief Administrative Officer (CAO) will send out a communication to all staff and faculty members of the correct policy for purchasing University goods and services. Future reimbursement of all purchases made on personal credit card will need to be reviewed and approved by the Pathology CAO.

In addition, as a preventative measure against potential fraud, Pathology faculty and staff members will be reminded that goods purchased with University funds should be shipped to a valid University address, as opposed to the purchaser's home, or other personal address.

4. Account-Fund Management/Reconciliation

Background

University policy requires that responsible University employees monitor and verify transactions and reconcile balances in the general ledger. Additionally, UC Irvine key internal controls require that responsible individuals review/reconcile account-funds on a periodic basis. As a best practice, initialing and dating each completed reconciliation provides accountability for the process.

Observation

A review of recent Pathology account-fund management and reconciliation processes was completed. The review disclosed that Pathology's current processes are not compliant with UC Irvine Accounting Policy 701-08 with regard to the management and reconciliation of account-funds.

1. Pathology does not have a written departmental policy stating the requirement for (or frequency of) account-fund reconciliations, or the continuous review of Pathology account-funds. Discussions with management disclosed that, at a minimum, accounts are reconciled at fiscal year-end. However, documentation is not maintained that indicates when reconciliations are performed and by whom.
2. Documentation provided by management disclosed that approximately 30 out of 100 (30 percent) active Pathology account-funds have a zero balance.

Key departmental internal control policies over account-fund management and reconciliation need to be created and documented. UCI Policy 701-08 states that responsible employees [i.e., fiscal officers, or delegates] need to maintain procedures that require the timely monitoring and verification of accounting transactions and account/fund balances in order to enable the reconciliation of balances to the Kuali Financial System (KFS) General Ledger.

As a best practice, Pathology account-funds with stale balances (including zero balances) should be periodically reviewed by responsible Pathology employees [i.e., fiscal officers, or delegates] to ensure that obsolete and/or unneeded account-funds are closed in a timely manner.

Management Action Plan

By June 30, 2023, Pathology administration will develop and enforce a written policy for the Pathology department regarding the requirements for and frequency of account-fund reconciliations. The policy will also require that reconciliation documentation indicate when reconciliations are performed and by whom.

Furthermore, the written policy will document the internal processes of Pathology's account-fund balance monitoring and transaction verification processes utilized to reconcile each account-fund balance, and ensure that active account-funds are being closed in a timely manner when they are no longer being used.

In addition, records documenting the most current reconciliations will be retained in the Pathology department business office for internal and/or third-party verification and review.